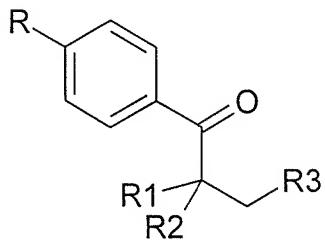


AMENDMENTS TO THE CLAIMS

1. (Original) Ester derivatives of hyaluronic acid or of hyaluronic acid derivatives, wherein part of the carboxylic groups of hyaluronic acid or of hyaluronic acid derivatives is esterified with the propiophenone derivatives of formula (I)



(I)

wherein R is selected from the group consisting of hydroxy, alkyloxy having an alkyl chain C1-C20 bearing one or more hydroxy groups, and heterocycle bearing one or more hydroxy groups; and

R₁, R₂ and R₃, equal or different amongst each other, are selected from the group consisting of hydrogen, hydroxy, alkyl C1-C20 possibly substituted with one or more hydroxy groups and alkyloxy C1-C20 possibly substituted with one or more hydroxy groups.

2. (Original) Ester derivatives according to claim 1, wherein the said propiophenone derivative is selected from the group consisting of 4-(2,3-dihydroxypropoxy)-3-methoxy-propiophenone, 4'-(2-hydroxy-3-morpholinopropoxy)-propiophenone and 2-hydroxy-4-(2-hydroxyethoxy)-2-methyl-propiophenone.

3. (Original) Ester derivative according to claim 2, wherein the said propiophenone derivative is 2-hydroxy-4-(2-hydroxyethoxy)-2-methylpropiophenone.

4. (Original) Ester derivatives according to claim 1, wherein the percentage of carboxylic groups of hyaluronic acid or of hyaluronic acid derivatives esterified with the said propiophenone derivatives of formula (I) is lower than 75%.

5. (Original) Ester derivatives according to claim 1, wherein the carboxylic groups not esterified with the said propiophenone derivatives of formula (I) are salified with sodium.

6. (Previously presented) Ester derivatives according to claim 1, wherein the said hyaluronic acid derivatives do not comprise C=C bonds and are selected from the group consisting of:

- hyaluronic acid esters wherein a percentage of the carboxylic groups not exceeding 75% are esterified with alcohols of the aliphatic, araliphatic, aromatic, cyclic and heterocyclic series, and the remaining percentage of not esterified carboxylic groups are salified with quaternary ammonium salts to enable a second esterification with the said propiophenone derivatives of formula (I);

- hyaluronic acid amides wherein a percentage of the carboxylic groups not exceeding 50% are amidated with amines of the aliphatic, araliphatic, aromatic, cyclic and heterocyclic series, and the remaining percentage of not amidated carboxylic groups are salified with quaternary ammonium salts to enable a second esterification with the said propiophenone derivatives of formula (I);

- quaternary ammonium salts of N-sulphated or O-sulphated derivatives of hyaluronic acid; and

- inner esters of hyaluronic acid wherein a percentage of the carboxylic groups not exceeding 20% is esterified with alcoholic groups of the same hyaluronic acid chain or of a different chain, and the remaining percentage of not esterified carboxylic groups is salified with quaternary ammonium salts to enable a second esterification with the said propiophenone derivatives of formula (I).

7. (Original) Ester derivatives according to claim 6, wherein the said quaternary ammonium salts are tetrabutyl ammonium salts.

8. (Previously presented) Ester derivatives according to claim 6, wherein the said hyaluronic acid ester with alcohols of the araliphatic series is a hyaluronic acid ester with benzyl alcohol.

9. (Previously presented) Ester derivatives according to claim 6, wherein the said hyaluronic acid amide with amines of the aliphatic series is a hyaluronic acid amide with dodecyl amine.

10. (Original) Ester derivatives according to claim 1, wherein the said hyaluronic acid or hyaluronic acid derivative has a molecular weight ranging between 150,000 and 1,000,000 Da.

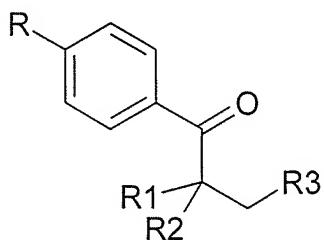
11. (Previously presented) Ester derivatives according to claim 1, wherein said ester derivatives with propiophenone derivatives of formula (I) are soluble in water.

12. (Previously amended) Process for the preparation of the ester derivatives of hyaluronic acid or of hyaluronic acid derivatives, wherein part of the carboxylic groups of hyaluronic acid or of hyaluronic acid derivatives is esterified with the propiophenone derivatives of formula (I)

(I)

wherein R is selected from the group consisting of hydroxy, alkyloxy having an alkyl chain C1-C20 bearing one or more hydroxy groups, and heterocycle bearing one or more hydroxy groups; and

R₁, R₂ and R₃, equal or different amongst each other, are selected from the group consisting of hydrogen, hydroxy, alkyl C1-C20 possibly substituted with one or more hydroxy groups and alkyloxy C1-C20 possibly substituted with one or more hydroxy groups,
said process comprising the reaction of hyaluronic acid or of hyaluronic acid derivatives with the bromide of the propiophenone derivatives of formula (I) wherein at least a hydroxy group of the



substituent R is replaced by Br, to obtain the ester derivatives.

13. (Original) Process according to claim 12, wherein the said bromide of propiophenone derivative is the bromide of 2-hydroxy-4-(2-hydroxyethoxy)-2-methyl-propiophenone.

14. – 42. (Cancelled)

43. (Currently amended) Kit for implanting engineered cartilage by arthroscopic surgery comprising an ester derivative as claimed in claim 1 dissolved in water or in buffer or normal saline ~~an aqueous solution~~, a container for the said ester derivative, and an endoscopic probe with optic fibres suitable for the *in situ* photocuring of the said ester derivative.

44. (Currently amended) Kit according to claim 43, further comprising human fibroblasts or a steroid or non-steroid anti-inflammatory drug ~~an anti-inflammatory drug or a metalloprotease inhibitor or a NO synthase inhibitor or other biologically active molecules for use in the treatment of arthrosis and/or arthritis~~ added to the said ester derivatives.

45. (Original) Kit according to claim 43, wherein the said container is a container suitable for injection of the said ester derivative.

46. (Original) Kit according to claim 43, wherein the said endoscopic probe is suitable for the *in situ* irradiation by UV rays of the said ester derivative.

47. (Cancelled)